

Medical Nutrition Therapy for People with Diabetes

Medical Nutrition Therapy (MNT) is a key part of preventing and controlling diabetes and preventing or slowing the rate of diabetes complications. Persons with pre-diabetes or diabetes should receive nutrition counseling with a registered dietitian. This counseling should address individual nutrition needs and take into account the individual's willingness to change and personal and cultural preferences.

- For people with diabetes, eating healthy foods will:
 - improve blood glucose control and increase insulin sensitivity
 - lower blood pressure if currently elevated
 - raise HDL (good cholesterol) and lower LDL (bad cholesterol) and triglycerides
 - help reduce the need for diabetes medicines
 - help lose weight or maintain a healthy weight
 - lower the risk of developing other health problems
 - build muscle and strengthen bones (decrease risk of osteoporosis)

General Recommendations:

- It is recommended that those who have or are at risk for type 2 diabetes lose weight
 - Moderate weight loss = 7% of body weight
 - Dietary strategies include a reduced calorie diet and a reduction in fat intake
 - Low carbohydrate or low-fat calorie restricted diets may be effective
 - For patients on a low carbohydrate diet, monitor and adjust hypoglycemic therapy accordingly
 - For patients at risk for CVD, diets rich in fruits, vegetables, whole grains, and nuts may reduce risk and complications
- **Carbohydrates** (average minimum = 130g/day)
 - Several studies have shown a reduced risk of diabetes with an increased intake of foods containing whole grains and dietary fiber (14g/1000 kcal)
 - Key strategies for monitoring carbohydrate intake include carbohydrate counting, exchanges, and experienced-based estimations
 - Sucrose containing foods may be included in a healthy meal plan. These foods, like all carbohydrate-containing foods, should be covered with appropriate diabetes medications. Avoid excessive consumption
 - Non-nutritive sweeteners and sugar alcohols are safe when consumed within the daily intake levels established by the Food and Drug Administration
 - For individuals on a fixed amount of insulin, carbohydrate consumption and time consumed should be consistent from day to day
- **Dietary Fat** (Saturated fat = <7% of total calories, minimize trans fat, cholesterol = <200mg/day)
 - Two or more healthy portions of fish per week is recommended
 - It is recommended that people with diabetes consume 2 gram/day of plant sterols.
- **Proteins** (15-20% of calories)
 - High protein diets for weight loss are not recommended
- **Vitamins and Minerals**
 - Uncontrolled diabetes is often associated with micronutrient deficiencies and it is important for people with diabetes to consume the required daily allowances of vitamins and minerals from natural sources and a balanced diet
 - A reduced sodium intake of $\leq 2,300$ mg/day is recommended

Cautions:

- Treating Low Blood Glucose:
 - If your blood glucose is below 70, have one of the following right away and recheck after 15 minutes:
 - 3 or 4 glucose tablets
 - 1 serving of glucose gel—the amount equal to 15 grams of carbohydrate
 - 1/2 cup (4 ounces) of any fruit juice
 - 1/2 cup (4 ounces) of a regular—not diet—soft drink
 - 1 cup (8 ounces) of milk
 - 5 or 6 pieces of hard candy
 - 1 tablespoon of sugar or honey